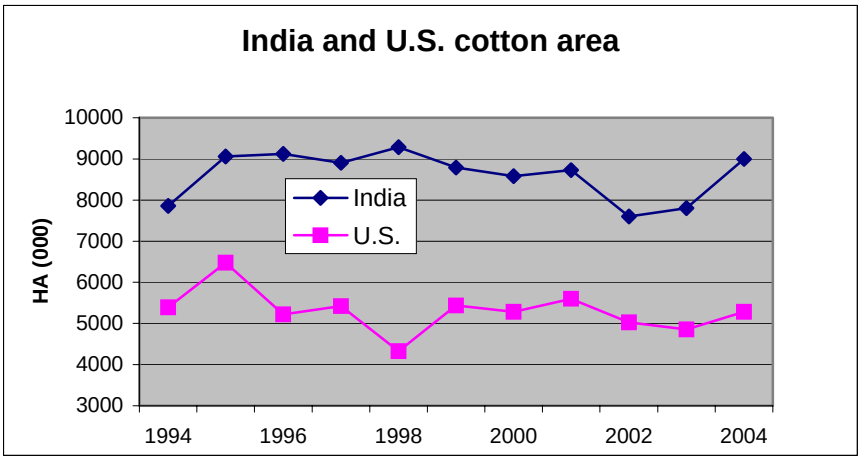
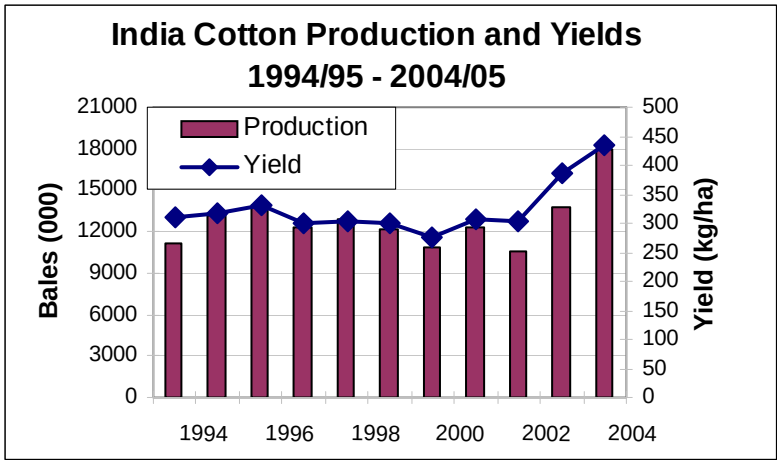
Production Estimates and Crop Assessment Division
Foreign Agricultural Service

Indian Cotton Production Forecast at a Record 18 million Bales

Could India surpass the United States as the second largest cotton producer behind China? Both the United States and India are forecast to produce record cotton crops in 2004/05 with 23.1 million and 18 million bales respectively.

Cotton area increased in both countries in 2004, although area in India increased more year-to-year. Indian cotton area generally fluctuates in response to prices but has been trending downward in recent years. In 2003/04, the trend reversed itself and area increased approximately 1.2 million hectares. Area increased in most states from 03/04 to 04/05 with Andhra Pradesh increasing the most at 38 percent. The distribution of cotton area among states changed little year-to-year. The central states of Maharashtra, Gujarat, and Madhya Pradesh continue to plant approximately 63 percent of India's total cotton area.



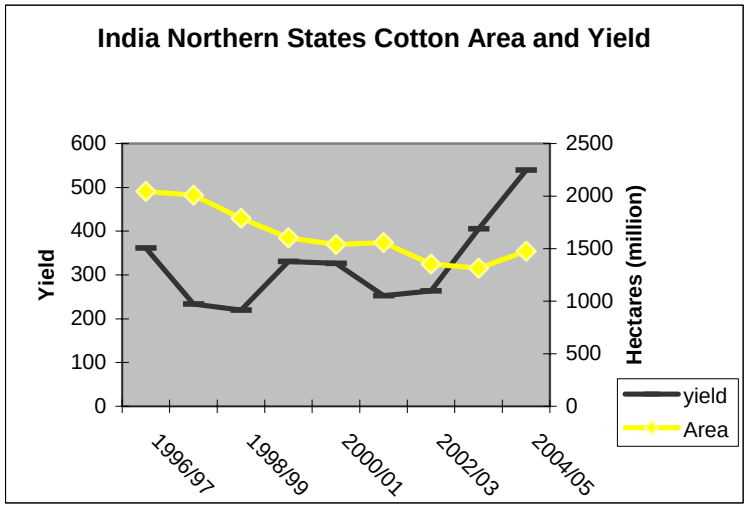


Overall yields have increased rapidly over the last two years. Yields prior to the 2003/04 season did not vary much from year-to-year as can be seen in the graph below. Yields in 2003/04 increased unexpectedly a little over 26 percent from the prior year and the 10-year average.[1]

[1] Overall yields in 2002/03 averaged 304 kg/ha, which coincidently, is equal to the prior 10-year average.

Likewise, forecast yields in 2004/05 continued an upward trend increasing 13 percent over the previous year's record and 39 percent above the 10-year average. The Government of India (GOI) first approved the use of Bt cotton in 2002 in the central and southern states. Area sewn with Bt cotton seed is expanding, growing from approximately 40,000 ha in 2002, to 100,000 ha in 2003 and 550,000 ha in 2004. In addition, high-yielding hybrid seeds are increasingly being planted across India.

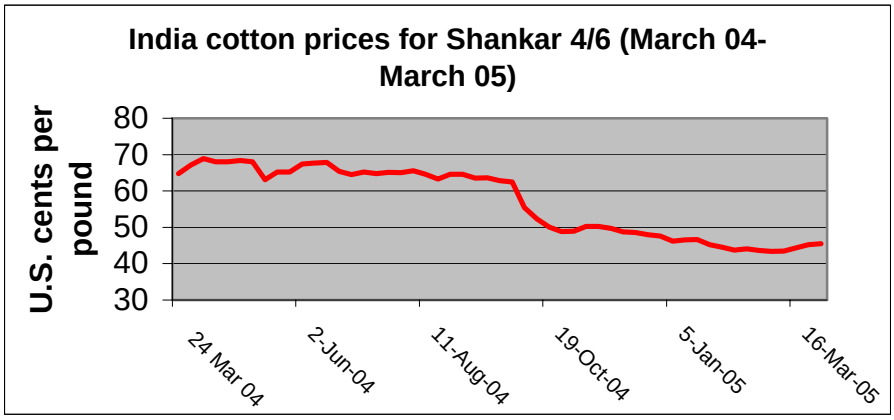
The GOI recently approved the use of Bt cotton seed in the Northern states, Punjab, Haryana, and Rajasthan. However, several sources indicate that Bt cotton seed had already been planted before approval was given in these areas, perhaps up to 50 percent of the Northern area. Although cotton area in 2004 only increased 12 percent in this region, yields increased 33 percent resulting in a production increase of nearly 22 percent. Therefore, improved yields played a more significant role in the Northern States 1.4 million bale (170 kg) increase in production.[2] This increase represents 22 percent of the total Indian year-over-year increase in production of 4.2 million bales. To the extent that farmers switch to the legally approved varieties and continue to adopt the technology, yields can be expected to grow somewhat in the coming years. The crops in the North are already irrigated, so any improvement in seed technology will only enhance production in these areas.



The State with the largest area planted to cotton over the last 10 years is Maharashtra located in the Central zone. Maharashtra generally sows about a third of the country's cotton area. However, yields are the lowest in the country historically. Yields in 2004 increased an estimated 66 percent in this State. This increase is significant, however yields only reached an estimated 291 kg/ha, well below the country's average of 435 kg/ha. The Central and Southern states crops are dependant on the timing of the monsoon. As a result of this season's unusual monsoon rainfall pattern, sowing in these states was extended through early September compared to the normal end of sowing in late-July. Also supporting higher yields was this season's alternating periods of precipitation followed by several days of sunshine creating environmental conditions unfavorable for pest proliferation. The combination of improved seed varieties (including Bt) and better than average weather helped boost yields. Any technological

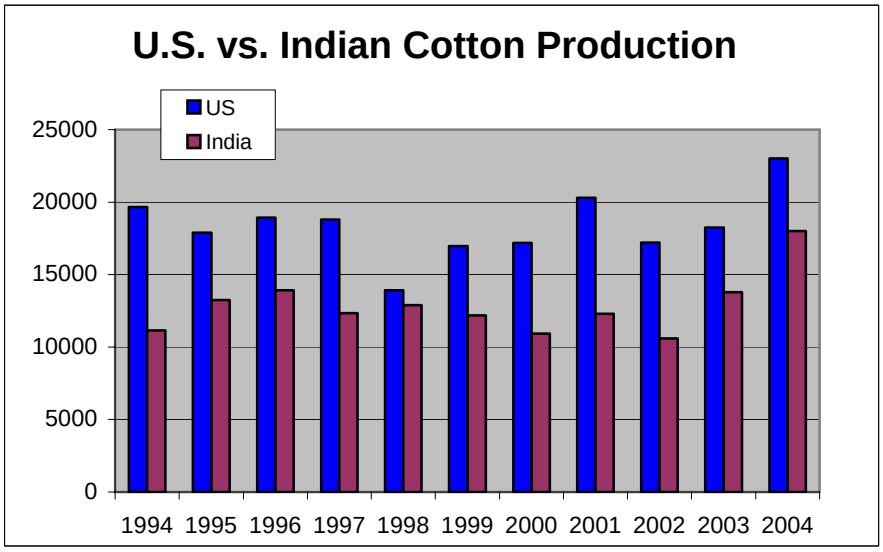
[2] It must be noted that Bt cotton seed reduces yield losses caused by bollworm infestations that have historically attacked the Indian and other developing countries cotton crop. Although the price for the Bt seed is greater, typically cost savings due to reduced pesticide use offsets the farmers increased cost for seed. The seed is generally not sold as a high yielding variety; rather it is sold as a yield loss reducer.

improvement in this state could have a significant affect on the country's future cotton production.



Although average domestic prices in India are approximately 25 percent lower than a year ago for a typical cotton variety, yield increases may partially offset any financial losses. Cotton area is likely to decline in 2005 somewhat as some crop switching is likely to occur, perhaps to more profitable crops such as oilseeds.

Both the United States and India are forecast at record cotton yields and production in 2004/05. The U.S. is forecast at a record high of 23.1 million bales, while India is forecast at record high of 18 million bales. As a comparison, while Indian cotton yields are a little less than half of U.S. yields, India planted close to 41 percent more area to cotton than the United States. India's forecast record production of 18 million bales this year has surpassed the United States 10-year average production of 17.9 million bales. If India yields continue to improve at the same rate as it has in the last two years, using average area, India cotton production could surpass the United States as the second largest cotton producer in the world behind China.



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